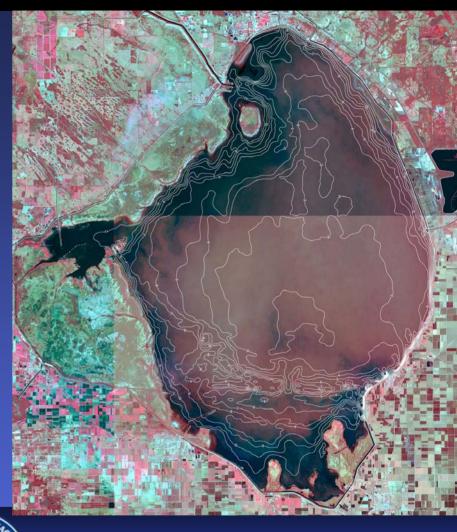
# Water Supply Performance in LORSS

Framework, Measures, Methods and Results

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# Overview

- Framework Goals
- Measures and Methods for LORSS
  - Recover Performance Measures
  - Other Performance Indicators
- Results for Base and Tentatively Selected Plan (TSP)
- Key Points



# A Place for Water Supply

- WRDA 2000 CERP is to provide for water supply
- State water supply goal (373.0361 F.S.)
  - The level-of-certainty planning goal associated with identifying the water supply needs of existing and future reasonable-beneficial uses shall be based upon meeting those needs for a 1-in-10-year drought event.
- Protect aquifer from degradation e.g. MFLs (373.042 F.S.)
- Water Supply Specifically Considered in Previous Lake Regulation Schedule Evaluations



# Recover Performance Measures

Official CERP Water Supply Performance Measures		Use in LORSS Evaluations	
WS-1	Frequency of Water Restrictions for the Lake Okeechobee Service Area	✓ Frequency	
		✓ Duration	
		✓ Severity	
WS-2	Frequency of Water Restrictions for the Lower East Coast Service Area	✓ Frequency - Lake SSM Caused	
		Frequency - Coastal Caused	
WS-4	Prevent Saltwater Intrusion of the Biscayne Aquifer – Meet MFL Criteria for Biscayne Aquifer	Violation of MFL for Specific Basins/Structures	
WS-5	Prevent Saltwater Intrusion of the Biscayne Aquifer in South Miami-Dade County	Stage Relative to Target for Specific Basins/Structures	



### **Other Measures**

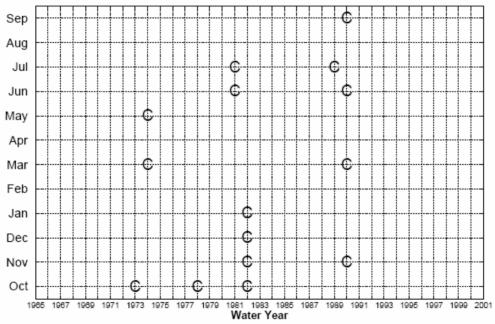
- Other Measures Considered to Help Differentiate Among Alternatives
- Additional Supply Side Management Cutback (acre-feet)
- Water Years with Supply Side Management Cutbacks >100,000 acre-feet
- Water Years with Supply Side Management Cutbacks >200,000 acre-feet
- EAA Percent of Demands not Met
- Other LOSA Percent of Demands not Met



# Water Restrictions Graphic LORSS Base Run

#### Frequency of Water Restrictions for the 1965 – 2000 Simulation Period





Total number of water years with restrictions-₹

Target number of water years with restriction\$=

C: Under Supply Side Management and Cutbacks for 7 days or more, and Cutbacks greater or equal than 10% and 18000 ac-ft/month

For Planning Purposes Only Run date: 06/26/06 15: 10:00 SFWMM V5.5.2 Script used: freq. water\_restr.sor, V1.11

Filename: losa freq restr.07LOR\$.fig

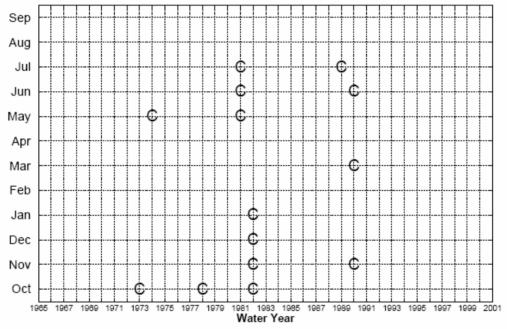
Note: Water year 1981 starts Oct/1980 and ends Sep/1981



# Water Restrictions Graphic TSP Run

#### Frequency of Water Restrictions for the 1965 – 2000 Simulation Period





Total number of water years with restrictions ₹

Target number of water years with restriction\$=

C: Under Supply Side Management and Cutbacks for 7 days or more, and Cutbacks greater or equal than 10% and 18000 ac-ft/month

For Planning Purposes Only Run date: 06/26/05 18:10:03 SEWMM VS 2

> Script used: freq\_water\_restr.scr, V1.11 Filename: losa\_freq\_restr.a1b82-m.fig

Note: Water year 1981 starts Oct/1980 and ends Sep/1981



## **Evaluation of Base and TSP**

CERP Performance Measures	LORSS Base	LORSS TSP	Result
Frequency of Water Shortages (years)	7	7	Same
Duration of Water Shortages (months)	15	14	Slightly Better
Severity of Water Shortages Score	9	10	Slightly Worse
Coastal Basin Supply Side Management Water Shortages (years with)	4	4	Same
Other Performance Indicators			
Additional Supply Side Management Cutbacks (compared to base) (acre-feet)	0	89,660	Slightly Worse
Water Years with Supply Side Management Cutbacks >100,000 acre-feet	4	3	Slightly Better
Water Years with Supply Side Management Cutbacks >200,000 acre-feet	0	1	Slightly Worse
EAA Percent of Demands not Met	4	6	Slightly Worse
Other LOSA Percent of Demands not Met	4	4	Same



# **Key Point of Presentation**

 Water Supply Performance of Base and TSP are not Significantly Different for the Simulation Period

# **Other Observations**

- The TSP Run at the End of the Simulation Period (Start of 2001 Water Shortage Period) has about 450,000 acre-feet less in Lake Okeechobee
- All runs in the LORSS family of runs show marked improvement in Water Supply Performance compared to previous runs with existing physical configurations

